



## Subject card

Subject name and code	IT Management of Transport Project, PG_00057116						
Field of study	Transport and Logistics						
Date of commencement of studies	February 2024		Academic year of realisation of subject		2024/2025		
Education level	second-cycle studies		Subject group		Obligatory subject group in the field of study 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		Polish		
Semester of study	2		ECTS credits		5.0		
Learning profile	general academic profile		Assessment form		exam		
Conducting unit	Institute of Ocean Engineering and Ship Technology -> Faculty of Mechanical Engineering and Ship Technology						
Name and surname of lecturer (lecturers)	Subject supervisor		dr inż. Tacjana Niksa-Rynkiewicz				
	Teachers		dr inż. Aleksander Kniat				
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	30.0	15.0	0.0	30.0	0.0	75
	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	75		15.0		35.0	125
Subject objectives	<p>The aim of the course is to familiarize and deepen students' knowledge with the possibilities of using programs and procedures available in them during classes that enable:</p> <p>a) desiningng knowledge system, b) creating relational databases, c) creating card databases, d) creating simple SQL queries using queries, e) creating forms and reports for printing, f) software necessary to complete the task is Ms Word, Ms Visio, Ms Access, Ms Excel.</p>						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[K7_W07] The student has an extensive knowledge of logistics, traffic engineering and transport management		Mastering the skills of creating a relational database in Ms Access and Ms Excel.		[SW1] Assessment of factual knowledge [SW2] Assessment of knowledge contained in presentation		
	[K7_W04] The student has basic knowledge of IT and telecommunication systems in transport and in the area of control in transport systems		Mastery of skills design in Ms Word, Ms Visio, Ms Access, Ms Excel.		[SW1] Assessment of factual knowledge		
	[K7_W05] The student has extensive knowledge of law, economics and transport management		Analysis of rules and dependencies in transport, logistics and forwarding.		[SW2] Assessment of knowledge contained in presentation		
	[K7_W06] The student has an extensive knowledge of transport systems and the principles of transport systems integration		Creating analyzes based on various types of transport, taking into account the delivery region and conditions, including: weather.		[SW3] Assessment of knowledge contained in written work and projects		
	[K7_U02] The student is able to plan and carry out research experiments in selected transport issues using various research methods		Design the various stages of database development and processes based on real data. The student will analyze, describe, program and present the database.		[SU4] Assessment of ability to use methods and tools [SU5] Assessment of ability to present the results of task		

Subject contents	Subject content - covered topics:  1. Introduction to databases; discussion of the literature and assessment rigors. Basic concepts, the problem of redundancy, independence, integrity. 2.Type of data and the form of their recording - historical outline. Analysis of the reasons for modifying the methods of recording large amounts of data and an introduction to the methods of recording them. 3.Card database - application, examples. 4. Relational database - relationship modeling. 5. ER diagram (Chen method). 6. Possibility of using iconography and Ms Visio system in databases. ER diagram using the object-oriented method. 7. Data types in Access. 8. Relational model summary: concepts, dependencies and normalization, advantages and disadvantages of normalization. 9. Database design - documentation. 10. Ms Access - creating a database, tables, relations. 11. Ms Access - creating queries - queries. 12. Ms Access - creating queries - queries. 13. Ms Access - creating forms and reports. 14. Presentation and discussion of examples of completed database projects. 15. Presentation and discussion of examples of completed database projects.		
Prerequisites and co-requisites	Basic knowledge of the functioning of Ms Word and Ms. Excel. Knowledge of programming terminology in English.		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
		60.0%	45.0%
		60.0%	45.0%
		60.0%	10.0%

Recommended reading	Basic literature	<p>1. Banachowski Lech: Databases. Creating applications. Akademicka Oficyna Wydawnicza PLJ, Warsaw, 1998. ISBN 83-7101-377-9.</p> <p>2. Ullman, J.D., J. Widom: Basic lecture in database systems. WN-T, Warsaw, 1999 (translated from English, 1997 edition). ISBN 83-204-2394-5.</p> <p>3. Boratyn Dariusz: MS ACCESS 2.0. System, computing, towards applications. CROMA Publishing House, Wroclaw, 1995. ISBN 83-86343-30-3.</p> <p>4. Boratyn Dariusz: Microsoft Office ACCESS 97. system, face, towards applications. CROMA Publishing House, Wroclaw, 199. ISBN 83-86343-27-2.</p> <p>5. Cassel, O. and C. Eddy: ACCESS 97: A database for everyone. HELION Publishing House, Gliwice, 1999. ISBN 83-7197-067-6.</p> <p>6. Kopertowska M. and Ł. Jaroszewski: Exercises with ACCESS 97 database. EDU-MIKOM, Warsaw, 1997. ISBN 83-87102-031-8.</p> <p>7. Kopertowska M. European Computer Driving Licence. Databases. (ECDL). ZNI MIKOM, Warsaw, 1999. ISBN 83-87102-62-8.</p> <p>8. Kuciński K.: Poznajemy Accessa. Everything you wanted to know about MS ACCESS but had no one to ask. Edition 2000, Cracow 1999, ISBN 83-87297-50-X.</p> <p>9. Microsoft Access 2.0 step by step. READ ME Publishing House, Warsaw, 1994, ISBN 83-85769-86-2.</p> <p>10. Microsoft Access 97 step by step. Wydawnictwo RM, Sp. Z o.o., Warsaw, 1997. ISBN 83-87216-09-7.</p> <p>11. Norton, P., V. Andersen: Microsoft ACCESS 2000 PL. Programming according to Peter Norton. ZNI MIKOM, Warsaw, 2000. ISBN 83-7279-058-2.</p>
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	Supplementary literature	<p>Database theory</p> <ol style="list-style-type: none"> <li>1. Benyon-Davies, P.: Database systems. WNT, Warsaw, 1998. ISBN 83-204-2257-4.</li> <li>2. Cellary W. And Z. Królikowski: Introduction to database design. dBase III. WNT, Warsaw, 1988. ISBN 83-204-1089-4.</li> <li>3. Connolly, T. C. Begg: Database Systems: A Practical Approach to Design, Implementation and Management. Addison-Wesley Longman, 1998. ISBN 0201342871.</li> <li>4. Date, C.J.: Introduction to databases. WNT, Warsaw, 1981.</li> <li>5. Date, C.J.: An Introduction to Database Systems. Sixth Edition. Reading: Addison-Wesley Publishing Company, 1995 (planned translation in WNT).</li> <li>6. Delobel, C. and M. Adiba: Relational databases. WNT, Warsaw, 1989. ISBN 83-204-1025-8.</li> <li>7. Elmasri, R. and S. B. Navathe: Fundamentals of Database Systems. The Benjamin/Cummings Publishing Company, Inc. Redwood City California, 1994. ISBN 0-8053-1753-8.</li> </ol>
	eResources addresses	Adresy na platformie eNauczanie:
Example issues/ example questions/ tasks being completed	<p>TASK: "MUSIC LIBRARY" The database "Music library" is to store information about the library's customers, collections of books, sheet music, records and loan history. Each customer is identified by a unique number (id_client) and its characteristics: name, surname, pesel, phone, e-mail, ID number. One customer can borrow only 3 books, 1 CD and 3 sheet music at a time. A customer can borrow the same item more than once. In the library's collection, the same book or record may appear in a couple of copies. NOTE The database is to store only the necessary information about the assortment. Each transaction between the customer and the library is identified by the identifiers of the customer and the borrowed object. The relevant information is the date of the loan.</p>	
Work placement	Not applicable	

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