

**DESCRIPTION OF THE COURSE OF STUDY
FOR EXCHANGE STUDENTS**

Kod przedmiotu	0413.3.ZARZ1.D42.BDA	
Name of the course in	English	<i>Databases and Information Management</i> Bazy danych i zarządzanie informacją
	Polish	

1. LOCATION OF THE COURSE OF STUDY WITHIN THE SYSTEM OF STUDIES

1.1. Field of studies	Management
1.2. Form of studies	Full Time / Part Time
1.3. Level of studies	I degree (Bachelor's Degree)
1.4. Profile of studies	Academic
1.5. Person responsible for the card	Prof. Maciej Rybczyński, PhD
1.6. Kontakt	maciej.rybczynski@ujk.edu.pl

2. GENERAL CHARACTERISTICS OF THE COURSE OF STUDY

2.1. Language	English, Polish
2.2. Prerequisites	Information-Communication Techniques, Mathematics

3. DETAILED CHARACTERISTICS OF THE COURSE OF STUDY

3.1. Form of classes	Lecture	
3.2. Place of classes	Lecture at University	
3.3. Form of assessment	graded credit, e-learning - approval	
3.4. Didactic methods	Lecture with presentation	
3.5. Literature	Basic	<ol style="list-style-type: none"> Hernandez Michael J., Projektowanie baz danych dla każdego. Przewodnik krok po kroku, Wydawnictwo Helion, 2022. Benjamin Johnston, Matt Goldwasser, Upom Malik, SQL. Analiza danych za pomocą zapytań. Warsztaty praktyczne, Wydawnictwo Helion, 2021. Garcia-Molina Hector, Jeffrey D. Ullman, Systemy baz danych. Kompletny podręcznik. Wydanie II, Wydawnictwo Helion, 2016
	Additional	<ol style="list-style-type: none"> Unold J. Zarządzanie informacją w cyberprzestrzeni, PWN, Warszawa, 2021. Campbell Laine, Inżynieria niezawodnych baz danych. Projektowanie systemów odpornych na błędy, Wydawnictwo Helion, 2018. Ogólnodostępne wykłady http://wazniak.mimuw.edu.pl Garcia-Molina Hector, Jeffrey D. Ullman, Database Systems: The Complete Book 2nd Edition, Department of Computer Science Stanford University, Upper Saddle River, New Jersey 2022. https://people.inf.elte.hu/miigaai/elektroModulatorDva.pdf

4. OBJECTIVES, SYLLABUS CONTENT

<p>4.1. Subject objectives</p> <p>Lecture:</p> <p>C1. Knowledge – Getting to know the basic specifics of information storage and management, basics of relational databases, main DBMS systems</p> <p>C2. Skills – Preparation for the selection and use of modern database and information management systems.</p> <p>C3. Social competences – Understanding the operation of basic systems for creating databases and managing the information contained in them..</p>
<p>4.2. Detailed syllabus</p> <p>Lecture:</p> <ol style="list-style-type: none"> Types and models of modern databases. Basics of relational data model, operations performed on relations Normalization of database logical schemes. SQL language - standard language of communication with relational databases. Database indexing Transactions in databases, concurrent management of transactions and transactional disaster recovery. PL/SQL language (program syntax in PL/SQL, defining variables and constants, control structures, cursors, exceptions, procedures, functions, packages)

8. Issues related to the migration of databases to the object-relational and object-oriented model.
9. NoSQL databases
10. Practical use of basic DBMS systems

4.3. Subjects' learning outcomes

LO	A student who has passed a subject	Reference to directional learning outcomes
In terms of KNOWLEDGE :		
W01	knows the concepts and basic concepts of databases and information management	ZARZ1A_W08
W02	knows the principles and methodologies of modeling and designing databases and information management	ZARZ1A_W17 ZARZ1A_W18
W03	Knows and understands SQL query language standards	ZARZ1A_W19
in terms of SKILLS :		
U01	Can use the SQL query language and basic PL/SQL commands for an existing database.	ZARZ1A_U02
U02	Selects appropriate methods and tools for creating databases and information management, designs basic databases	ZARZ1A_U10
In terms of SOCIAL COMPETENCES :		
K01	is aware of his knowledge and skills in using and designing databases	ZARZ1A_K05

Ways of verifying the achievement of the learning outcomes in question

Learning outcome	Way of verifying (+/-)									
	Test									
	Form of classes									
	W	C	...							
W01	+									
W02	+									
W03	+									
U01	+									
U02	+									
K01	+									

4.5. Criteria for assessing the degree of achievement of learning outcomes

Form of classes	Grade	Assessment criteria
Practical classes	3	The student passed the test at the level of 50-60% of the maximum possible number of points.
	3,5	The student passed the test at the level of 61-70% of the maximum possible number of points.
	4	The student passed the test at the level of 71-80% of the maximum possible number of points.
	4,5	The student passed the test at the level of 81-90% of the maximum possible number of points.
	5	The student passed the test at the level of 91-100% of the maximum possible number of points.

4. ECTS POINTS BALANCE - STUDENT WORKLOAD

Category	Student workload	
	Full time studies*	Part time studies*
<i>NUMBER OF HOURS IMPLEMENTED WITH DIRECT PARTICIPATION OF THE TEACHER /CONTACT HOURS/</i>	34	14
<i>Participation in lectures</i>	30	10
<i>Participation in the exam / test</i>	1	1
<i>Other: consultancy</i>	3	3
<i>STUDENT'S INDEPENDENT WORK /NON-CONTACT HOURS/</i>	16	36
<i>Preparation for the lecture</i>	6	6
<i>Preparation to the exam / test</i>	10	30
TOTAL HOURS	50	50
ECTS Credits	2	2