Course Syllabus

Course from study programme for the cycle: 2022/2023

I. General Information

Course name	Databases II
Programme	Informatics
Level of studies (BA, BSc, MA, MSc, long-cycle MA)	BA
Form of studies (full-time, part-time)	full-time
Discipline	Informatics
Language of instruction	English

Course coordinator	dr Andrzej Michalski

Type of class *(use only the types mentioned below)*	Number of teaching hours	Semester	ECTS Points
lecture	30	VI	5
tutorial			
classes			
laboratory classes	30	VI	
workshops			
seminar			
introductory seminar			
foreign language classes			
practical placement			
field work			
diploma laboratory			
translation classes			
study visit			

Course pre-requisites	Knowledge of theoretical and practical foundations in the field of databases. Knowledge of SQL.

II. Course Objectives

To present database objects and selected aspects of database programming.

III. Course learning outcomes with reference to programme learning outcomes

Symbol	Description of course learning outcome	Reference to programme learning outcome
KNOWLEDGE		
W_01	The student knows the basic database objects and understands their purpose (K_W10)	K_W10
W_02	The student knows the extensions of the SQL language (K_W10)	K_W10
SKILLS		
U_01	Student is able to write effective code in the form of stored procedures, user functions and triggers (K_U02, K_U04, K_U26, K_U27)	K_U02, K_U04, K_U26, K_U27
U_02	Student knows basic database objects and is able to create simple database system (K_U26, K_U27)	K_U26, K_U27
SOCIAL COMPETENCIES		
K_01	The student formulates opinions on issues in the field of databases, verifies knowledge of the above range (K_K01)	K_K01
K_02	The student understands the limitations of his knowledge and skills, and is ready for further training and raising professional and personal competences (K_K01)	K_K01

IV. Course Content

Programming in PL / SQL. Language rules. Data Types. Blocks, their structure and sections. Variables and their scope. Conditional statements. Loops. SQL in PL / SQL. Records. Cursors. Collections. Exceptions. Creating and using procedures, functions. Packages. Dynamic SQL. Triggers.

V. Didactic methods used and forms of assessment of learning outcomes

Symbol	Didactic methods *(choose from the list)*	Forms of assessment *(choose from the list)*	Documentation type *(choose from the list)*
KNOWLEDGE			
W_01	conventional lecture, problem lecture, conversational lecture, e-learning	Written test	Evaluated written test
W_02	conventional lecture, problem lecture, conversational lecture, e-learning	Written test	Evaluated written test
SKILLS			
U_01	practical classes, group work, design thinking, e-learning	Written test	Evaluated written test
U_02	practical classes, group work, design thinking, e-learning	Written test	Evaluated written test

SOCIAL COMPETENCIES			
K_01	group work, design thinking	Written test	Evaluated written test
K_02	group work, design thinking	Written test	Evaluated written test

VI. Grading criteria, weighting factors.....

LECTURE:

The completion of classes is required. Written exam constitutes the final grade:

91 – 100% excellent

81 – 90% very good

71 – 80% good

61 – 70% satisfactory

51 – 60% sufficient

less than 51% fail

CLASSES:

At least 80% of attendance is required. Written test constitutes the final grade:

91 – 100% excellent

81 – 90% very good

71 – 80% good

61 – 70% satisfactory

51 – 60% sufficient

less than 51% fail

Detailed assessment rules are given during lectures and classes.

VII. Student workload

Form of activity	Number of hours
Number of contact hours (with the teacher)	Lecture: 30 hrs. Classes: 30 hrs. Individual consultations: 30 hrs. In total: 90 hrs.
Number of hours of individual student work	Preparation for classes: 15 hrs. Studying books: 15 hrs. Preparation for tests and exams: 30 hrs. In total: 60 hrs.

VIII. Literature

Basic literature
R. Elmasri, S.B. Navathe, Wprowadzenie do systemów baz danych, Helion, 2019 H. Garcia-Molina, J. D. Ullman, J. Widom, Systemy baz danych, Helion 2011 J. Price, Oracle Database 12c i SQL. Programowanie, Helion 2015 Michael McLaughlin, Oracle Database 12c. Programowanie w języku PL/SQL, Helion 2015
Additional literature

B. Bryla, K. Loney, Oracle Database 11g. Podręcznik administratora baz danych, Helion, 2010
S. Alapati, D. Kuhn, B. Padfield Oracle Database 12c. Problemy i rozwiązania, Helion 2014
docs.oracle.com/en/database/oracle/oracle-database/18/lnpls