MODULE DESCRIPTION

Module code	
Module name	**Bazy danych 1**
Module name in English	**Databases 1**
Valid from academic year	**2012/13**

MODULE PLACEMENT IN THE SYLLABUS

Subject	**Computer Science**
Level of education	**1st degree** *(1st degree / 2nd degree)*
Studies profile	**General** *(general / practical)*
Form and method of conducting classes	**Full-time** *(full-time / part-time)*
Specialisation	
Unit conducting the module	**The Department of Computer Science**
Module co-ordinator	**Mariusz Bedla, PhD, Eng.**
Approved by:	

MODULE OVERVIEW

Type of subject/group of subjects	**Major** *(basic / major / specialist subject / conjoint / other HES)*
Module status	**Compulsory** *(compulsory / non-compulsory)*
Language of conducting classes	**Polish**
Module placement in the syllabus - semester	**3rd semester**
Subject realisation in the academic year	**Winter semester** *(winter / summer)*
Initial requirements	**The Fundamentals of Programming 2** *(module codes / module names)*
Examination	**Yes** *(yes / no)*
Number of ECTS credit points	**5**

Method of conducting classes	Lecture	Classes	Laboratory	Project	Other
Per semester	**30**		**30**		

TEACHING RESULTS AND THE METHODS OF ASSESSING TEACHING RESULTS

Module target	The aims of the module are as follows: familiarising students with basic notions and programming principles concerning relational databases, acquainting students with basic instructions of SQL and PL/SQL languages, and mastering the abilities concerning programming in SQL and PL/SQL languages.

Effect symbol	Teaching results	Teaching methods *(l/c/l/p/other)*	Reference to subject effects	Reference to effects of a field of study
W_01	Knowledge of the issues connected with the types and structure of data bases.	l	K_W14	T1A_W03
W_02	Knowledge of principles which concern designing relational databases.	l	K_W14	T1A_W07
W_03	Knowledge of basic instructions of SQL and PL/SQL languages.	l	K_W14	T1A_W07
U_01	The ability of designing relational databases.	l	K_U20	T1A_U16
U_02	The ability of designing in SQL and PL/SQL languages.	l	K_U20	T1A_U14 T1A_U15

Teaching contents:

Teaching contents as regards lectures

Lecture number	Teaching contents	Reference to teaching results for a module
1	Introduction to database systems.	W_01
2	Conceptual designing of databases.	W_02
3	Logical database designing for a relational model.	W_02
4	Expressing a global logical database model in target Database Management System (Oracle). Basic instruction in the SQL language.	W_02 W_03
5	Basic queries.	W_03
6	Advanced queries.	W_03
7	Views.	W_03
8	Basic instructions of the PL/SQL language, functions, and procedures.	W_03
9	Cursors, exceptions, application errors, and packages.	W_03
10	Triggers, dynamic SQL.	W_03
11	Indices.	W_03
12	Optimisation of SQL and PL/SQL.	W_03
13	Transactions.	W_03
14	The structure of the Oracle system.	W_01
15	Current directions of database development.	W_01

Teaching contents as regards laboratory classes

Laboratory class number	Teaching contents	Reference to teaching results for a module
1	Introduction to database systems.	U_01
2	Conceptual designing of databases.	U_01
3	Logical database designing for a relational model.	U_01
4	Expressing a global logical database model in target Database Management System (Oracle). Basic instruction in the SQL language.	U_01 U_02

5	Basic queries.	U_02
6	Advanced queries.	U_02
7	Views.	U_02
8	Basic instructions of the PL/SQL language, functions, and procedures.	U_02
9	Cursors, exceptions, application errors, and packages.	U_02
10	Triggers, dynamic SQL.	U_02
11	Creating a standardised project concerning databases for a relational model.	U_02
12	Creating scripts containing SQL language instructions.	U_02
13	Creating scripts containing PL/SQL language instructions.	U_02
14	Creating a simple client for the Oracle database.	U_02
15	Testing the generated client and entering alterations.	U_02

The methods of assessing teaching results

Effect symbol	**Methods of assessing teaching results** *(assessment method, including skills – reference to a particular project, laboratory assignments, etc.)*
W_01	An examination
W_02	An examination
W_03	An examination
U_01	Obtaining a credit on the basis of results of completed tasks as well as oral answer
U_02	Obtaining a credit on the basis of results of completed tasks as well as oral answer

STUDENT'S INPUT

ECTS credit points		
	Type of student's activity	**Student's workload**
1	Participation in lectures	**30**
2	Participation in classes	
3	Participation in laboratories	**30**
4	Participation in tutorials (2-3 times per semester)	**3**
5	Participation in project classes	
6	Project tutorials	
7	Participation in an examination	**2**
8		
9	**Number of hours requiring a lecturer's assistance**	**65** *(sum)*
10	**Number of ECTS credit points which are allocated for assisted work** *(1 ECTS credit point=25-30 hours)*	**3**
11	Unassisted study of lecture subjects	**20**
12	Unassisted preparation for classes	
13	Unassisted preparation for tests	
14	Unassisted preparation for laboratories	**20**
15	Preparing reports	
16	Preparing for a final laboratory test	
17	Preparing a project or documentation	
18	Preparing for an examination	**20**
19	Preparing questionnaires	
20	**Number of hours of a student's unassisted work**	**60** *(sum)*
21	**Number of ECTS credit points which a student receives for unassisted work** *(1 ECTS credit point=25-30 hours)*	**2**
22	**Total number of hours of a student's work**	**125**
23	**ECTS credit points per module** *1 ECTS credit point=25-30 hours*	**5**
24	**Work input connected with practical classes** *Total number of hours connected with practical classes*	**50**
25	**Number of ECTS credit points which a student receives for practical classes** *(1 ECTS credit point=25-30 hours)*	**2**