STUDY MODULE DESCRIPTION FORM

Name of the module/subject **Databases**		Code **1010334561010330220**

Field of study **Information Engineering**	Profile of study (general academic, practical) **(brak)**	Year /Semester **3 / 6**

Elective path/specialty **-**	Subject offered in: **Polish**	Course (compulsory, elective) **obligatory**

Cycle of study: **First-cycle studies**	Form of study (full-time,part-time) **part-time**

No. of hours Lecture: **20** Classes: **-** Laboratory: **8** Project/seminars: **8**	No. of credits **4**

Status of the course in the study program (Basic, major, other) **(brak)**	(university-wide, from another field) **(brak)**

Education areas and fields of science and art **technical sciences** **Technical sciences**	ECTS distribution (number and %**)** **4 100%** **4 100%**

Responsible for subject / lecturer:

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Prerequisites in terms of knowledge, skills and social competencies:

1	**Knowledge**	Programming languages (preferably C++/java), basic knowledge of combinatorics and data retrieval, formal logc and set theory
2	**Skills**	Proficiency in some OOP language. Basic skills in Operating System API Ability to solve basic problems in data retrieval.
3	**Social competencies**	basic social skills expected

Assumptions and objectives of the course:

SQL programming, data base modelling, proficiency in Visual studio and c# programming within the scope of ADONET

Study outcomes and reference to the educational results for a field of study

Knowledge:

Skills:

Social competencies:

Assessment methods of study outcomes

examination, reports and tests
the knowledge of the student will be verified,

Course description

Security and session management. Querying with SQL. Relational operators : projection, selection , grouping and relational join, cross product. Data manipulation statements. Relational division. New and non-standard construct of SQL. Basic DB client appliactions in c#.

Basic bibliography:

Additional bibliography:

Result of average student's workload	
Activity	**Time (working hours)**
1. Lecture	30
2. Labs	15
3. Contact with lecturer	5
4. Work with textbooks	20
5. preparations for exercises	15
6. lab reports	15

Student's workload		
Source of workload	**hours**	**ECTS**
Total workload	100	4
Contact hours	50	2
Practical activities	50	2