

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: dr inż. Andrzej Sikorski email: andrzej.sikorski@put.poznan.pl tel. 6653958 Wydział Elektryczny ul. Piotrowo 3A 60-965 Poznań		
Prerequisites in terms of knowledge, skills and social competencies:		
1	Knowledge	Programming languages (preferably C++/java), basic knowledge of combinatorics and data retrieval, formal logic 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 applications in c#.		

Basic bibliography:		
Additional bibliography:		
Result of average student's workload		
Activity	Time (working hours)	
1. Wykład	30	
2. Ćwiczenia	15	
3. Konsultacje	5	
4. Praca z podręcznikiem	20	
5. Przygotowanie do lab	15	
6. Sprawozdania	15	
Student's workload		
Source of workload	hours	ECTS
Total workload	100	4
Contact hours	50	2
Practical activities	50	2