STUDY MODULE DESCRIPTION FORM

Name of the module/subject **Databases**		Code **1010334571010330220**

Field of study **Information Engineering**	Profile of study (general academic, practical) **(brak)**	Year /Semester **4 / 7**

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	No. of credits
Lecture: **16** Classes: **-** Laboratory: **-** Project/seminars: **8**	**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**	Database course in preceding semester.
2	**Skills**	As covered in preceding course.
3	**Social competencies**	standard social skills

Assumptions and objectives of the course:

SQL and c# programming. Multi-tier architecures. Implementation of complex business rules with SQL and application servers.

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

Knowledge:

Skills:

Social competencies:

Assessment methods of study outcomes

test and problem assigments verifying proficiency in SQL and c# programming

Course description

Business appliaction programming. Client -server and multi-tier architectures. Complex business rules implementation/specification. Distributed and multi-tier programming. Component oriented transactional servers. CLR/.NET support for distributed progragramming. Transaction processing.

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. student's work textbook	20
5. preparation for exercises	10
6. project	20

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