STUDY MODULE DESCRIPTION FORM

Name of the module/subject			Code
Databases			**1010334571010330220**
Field of study	Profile of study (general academic, practical)		Year /Semester
Information Engineering	**(brak)**		**4 / 7**
Elective path/specialty	Subject offered in:		Course (compulsory, elective)
-	**Polish**		**obligatory**
Cycle of study:	Form of study (full-time,part-time)		
First-cycle studies	**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)	(university-wide, from another field)		
(brak)	**(brak)**		
Education areas and fields of science and art			ECTS distribution (number and %)
technical sciences			**4 100%**
Technical sciences			**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

(introduced in 2017) Asynchronous programming in database applications. Various programming model enabling asynchronous processing: multithreading and APM (obsolete), EAP and TAP (modern and supported by software platform)

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:

1. CJ Date Introduction to database system (any edition)
2. Alex Davies Async in C# 5.0: Unleash the Power of Async

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	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