STUDY MODULE DESCRIPTION FORM

Name of the module/subject		Code
Information Technology in Management		**1011105231011103576**

Field of study	Profile of study (general academic, practical)	Year /Semester
Engineering Management - Part-time studies -	**(brak)**	**2 / 3**
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: **10**	Classes: **-**	Laboratory: **10**	Project/seminars: **-**		**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 %)

Responsible for subject / lecturer:

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Responsible for subject / lecturer:

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Prerequisites in terms of knowledge, skills and social competencies:

1	**Knowledge**	Positive assessment from lectures and classes of the previous semester
2	**Skills**	Ability to program in VB. Designing the structure of databases.
3	**Social competencies**	Independent ability to work in a project team and the ability to run a project.

Assumptions and objectives of the course:

The course is aimed at presenting students knowledge on designing database for information management systems.

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

Knowledge:

1. The student knows methods and instruments for data collecting, processing and selecting, as well as methods for distributing information - [K1A_W11]
2. The student knows basic methods, techniques and instruments and materials used for solving simple engineer tasks from the area of the construction and exploitation of machines - [K04-InzA_W02]

Skills:

1. The student is able to plan and realize experiments, including measurements, computer simulations, and interpret obtained results and draw conclusions of them - [K01-InzA_U1]
2. The student is able to use methods of analysis, simulations and experiments for formulation and creation of engineer solutions - [K01-InzA_U2]

Social competencies:

1. Student is aware of the importance of the knowledge on information technologies, which is applied in engineering activity - [K01-InzA_K1]
2. Student is aware and takes under consideration information issues as a form of support in the process of creating products - [K01_InzA_K2]

Assessment methods of study outcomes

Formative assessment:

a) in the field of lectures: written test at the end of the lecture cycle.

b) in the field of laboratory classes: implementation of partial tasks and final project.

Summary:

a) in the field of lectures: score based on scores for each question.

b) in the field of laboratory classes: the average score of partial tasks and the entire project.

Course description

Lectures:

Elements of information systems in management.Relational data model. BD normalization methodology, CDM models and physical PDM database models.The practice of using declarative SQL to manipulate databases.

Laboratories:

Database structure design (conceptual, ERD and physical model).Physical design of BD system interfaces.Using SQL to manipulate data.Reporting project of selected data. Launch and test the entire relational data system project model.

Didactic methods:

-Information lecture.

-Work with a book.

-Demonstration method with instruction.

-Individual design method.

Basic bibliography:

1. Jurga A., Rozwój systemów informatycznych. [w]: Adamczyk M. i inni, Projektowanie systemów informacyjnych zarządzania, Wyd. Politechniki Poznańskiej, Poznań, 2010.

2. Ragin-Skorecka K., Włodarczak Z., Gry kierownicze, Wydawnictwo Politechniki Poznańskiej, Poznań 2011.

3. Connoly T.,Begg C., Systemy baz danych, praktyczne metody projektowania, implementacji i zarządzania, Wyd. RM, 2006.

4. Kopertowska M., Sikorski W., Bazy danych. Poziom zaawansowany, PWN, Warszawa, 2006

5. Mendrala D., Szeliga M., Access 2013 PL: bazy danych? Z programem MS Access to nic trudnego!, Wydawnictwo, Helion, Gliwice 2013.

6. . Rogulski M,. Bazy danych dla studentów : [podstawy projektowania i języka SQL], WITKOM (Salma Press), Warszawa 2012.

Additional bibliography:

1. Wilton P., Colby J., SQL. Od podstaw., Helion, 2005.

2. Hernande M.J., Projektowanie baz danych dla każdego : przewodnik krok po kroku; [tł. Żarnowska K., i inni, Wyd. Helion, Gliwice 2014.

Result of average student's workload

Activity	Time (working hours)
1. Lectures	10
2. Laboratory classes	10
3. Preparation for laboratory classes	15
4. Preparation for passing lectures	21
5. Passing lectures	2
6. Passing laboratory classes	2

Student’s workload

Source of workload	hours	ECTS
Total workload	60	4
Contact hours	24	2
Practical activities	10	1