STUDY MODULE DESCRIPTION FORM

Name of the module/subject		Code
Information Technology in Management		**1011101321011163576**

Field of study	Profile of study (general academic, practical)	Year /Semester
Engineering Management - Full-time studies -	**general academic**	**1 / 2**
Elective path/specialty	Subject offered in:	Course (compulsory, elective)
-	**Polish**	**obligatory**

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

No. of hours					No. of credits
Lecture: **15**	Classes: **-**	Laboratory: **30**	Project/seminars: **-**		**3**

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

Education areas and fields of science and art	ECTS distribution (number and %)
technical sciences	**2 67%**
social sciences	**1 33%**

Responsible for subject / lecturer:

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Prerequisites in terms of knowledge, skills and social competencies:

1	**Knowledge**	Basic knowledge from the computer science on the level of the first semester of studies on technical field
2	**Skills**	Ability of the efficient service of the computer and using the MS Office package in management processes
3	**Social competencies**	Ability to work in a design project team

Assumptions and objectives of the course:

The aim of the course is to provide students with knowledge in the field of database design of information management systems, including the basics of programming.

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 - [S1A_W06, 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,K1A_W24]

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,K1A_U12]
2. The student is able to use methods of analysis, simulations and experiments for formulation and creation of engineer solutions - [K01-InzA_U2, K1A_U13]

Social competencies:

1. Is aware of the importance of IT knowledge used in engineering. - [K1A_K01,K1A_K08]
2. Is aware and considers IT issues as support in creating products. - [InzA_K02, K1A_K09]

Assessment methods of study outcomes

Forming assessment:

- Lectures: on basis of questions asked during the lecture, which refer to previous 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 exercises, practical test on a komputer.

Summary:

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

b) in the field of laboratory classes: the total score of the exercises and the result of the test.

Course description

Lectures:

IT tasks in management.Structure of the information system in management.Database systems, type of databases.Relational database management system.Architecture of BD systems. Distributed systems.Basics of programming in VB (Visual Studio environment).

Laboratories:

Graphical user interface objects.Introduction to object-oriented programming with the help of tools for rapid application generation (Visual Studio). Introduction to databases, creating a database structure in a selected environment. Basics of data management.

Didactic methods:

-Information lecture.

-Work with a book.

-Demonstration method.

-Laboratory method.

Basic bibliography:

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

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

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

4. IReichel W., Visual Basic dla studentów: podstawy programowania w Visual Basic 2010, Witkom (Salma Press), Warszawa 2011.

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

Additional bibliography:

1. Bałachowski L., Krzysztof Stencel K., Systemy zarządzania bazami danych, Wyd. Polsko-Japońskiej Wyższej Szkoły Technik Komputerowych, Warszawa, 2007.

2. Avery J., [tł. Garbacz B, Kaczmarek D.], 100 sposobów na Visual Studio, Helion, Gliwice, 2005.

Result of average student's workload

Activity	Time (working hours)
1. Lectures	15
2. Laboratory classes	30
3. Preparation for laboratory classes	16
4. Consultation	5
5. Preparation for passing lectures	10
6. Passing lectures	2
7. passing laboratory classes.	2

Student's workload

Source of workload	hours	ECTS
Total workload	80	3
Contact hours	54	2
Practical activities	26	1