STUDY MODULE DESCRIPTION FORM

Name of the module/subject		Code
Mathematics		**1011105221010300063**

Field of study	Profile of study (general academic, practical)	Year /Semester
Engineering Management - Part-time studies -	**(brak)**	**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	**part-time**

No. of hours				No. of credits
Lecture: **10**	Classes: **10**	Laboratory: **-**	Project/seminars: **-**	**5**

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 %)
social sciences	**3 60%**
Economics	**3 60%**
technical sciences	**2 40%**
Technical sciences	**2 40%**

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**	Basic knowledge from first semester.
2	**Skills**	The ability to think logically. Ability to describe simple problems in mathematical language.
3	**Social competencies**	Working in a group.

Assumptions and objectives of the course:

Acquiring and consolidating of basic mathematical concepts using examples and skills in mathematical tools.

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

Knowledge:

1. Has knowledge of selected branches of higher mathematics - [K1A_W01]
2. Application of mathematics to solve selested technical problems - [K1A_W01]

Skills:

1. Able to use the basic knowledge of mathematics as a tool in logistics - [K1A_U09]
2. Able to perform studies using mathematical tools - [K1A_U09]

Social competencies:

1. He understands the need to deepen their mathematical knowledge - [T1A_KO1]
2. Is conscious of the need for learning throughout life - [T1A_KO1]

Assessment methods of study outcomes

Lectures: forming evaluation - activity cards, summary assessment - written and oral exam
Exercises: formowaniea evaluation - written tests, evaluation summarizes - written test

Course description
Elements of the integral calculus of functions of single variable. Series of numbers. Ordinary Differential Equations. Functions of several variables.
Basic bibliography: 1. Foltyńska, Z. Ratajczak, Z. Szafrański, Matematyka dla studentów uczelni technicznych, WPP Poznań 2000 2. M. Gewert, Z. Skoczylas, Analiza matematyczna 1, Definicja, twierdzenia, wzory 3. M. Gewert, Z. Skoczylas, Analiza matematyczna 1, Przykłady i zadania 4. T. Jurlewicz, Z. Skoczylas, ALgebra liniowa 1, Definicja, twierdzenia, wzory 5. T. Jurlewicz, Z. Skoczylas, ALgebra liniowa 1, Przykłady i zadania
Additional bibliography: 1. W. Krysicki, L. Włodarski, Analiza matematyczna w zadaniach, t. I-II, PWN Warszawa 1999 2. W. Stankiewicz, Zadania z matematyki dla wyższych uczelni technicznych, t. I-II 3. M. Lassak, Matematyka dla studentów technicznych

Result of average student's workload

Activity	Time (working hours)
1. .Lectures	10
2. Classes	10
3. Consultation	30
4. Preparing to classes	10
5. Preparing to pass the lectures	10
6. Exam	4

Student's workload

Source of workload	hours	ECTS
Total workload	74	5
Contact hours	54	3
Practical activities	10	1