

STUDY MODULE DESCRIPTION FORM		
Name of the module/subject Mathematics		Code 1011101221010300063
Field of study Engineering Management - Full-time studies -	Profile of study (general academic, practical) (brak)	Year /Semester 1 / 2
Elective path/specialty -	Subject offered in: Polish	Course (compulsory, elective) obligatory
Cycle of study: First-cycle studies	Form of study (full-time,part-time) full-time	
No. of hours Lecture: 15 Classes: 30 Laboratory: - Project/seminars: -		No. of credits 5
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 social sciences Economics technical sciences Technical sciences		ECTS distribution (number and %) 3 60% 3 60% 2 40% 2 40%
Responsible for subject / lecturer: dr Grzegorz Grzegorzczyk email: grzegorz.grzegorzczyk@put.poznan.pl tel. 61 665 26 87 Wydział Elektryczny ul. Piotrowo 3A 60-965 Poznań		Responsible for subject / lecturer: Małgorzata Zbąszyniak email: malgorzata.zbaszyniak@put.poznan.pl tel. 61 665 27 12 Wydział Elektryczny ul. Piotrowo 3a, 60-965 Poznań
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 selected 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		
Tests, written and oral exam.		
Course description		

Lectures: forming evaluation - activity cards, summary assessment - written and oral exam		
Exercises: formowaniaea evaluation - written tests, evaluation summarizes - written test		
Basic bibliography:		
1. Foltińska, Z. Ratajczak, Z. Szafranski, 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. Jurliewicz, Z. Skoczylas, ALgebra liniowa 1, Definicja, twierdzenia, wzory		
5. T. Jurliewicz, Z. Skoczylas, ALgebra liniowa 1, Przykłady i zadania		
Additional bibliography:		
1. W. Krywicki, 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	15	
2. Classes	30	
3. Consultation	20	
4. Preparing to classes	25	
5. Preparing to pass the lectures	30	
6. Exam	2	
Student's workload		
Source of workload	hours	ECTS
Total workload	122	5
Contact hours	67	3
Practical activities	30	1