

STUDY MODULE DESCRIPTION FORM		
Name of the module/subject Mathematics		Code 1011101421010340063
Field of study Logistics - Full-time studies - First-cycle studies	Profile of study (general academic, practical) general academic	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 4
Status of the course in the study program (Basic, major, other) other		(university-wide, from another field) university-wide
Education areas and fields of science and art technical sciences		ECTS distribution (number and %) 4 100%
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: Zenon Zbąszyniak email: zenon.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		

Elements of the integral calculus of functions of single variable. Series of numbers. Ordinary Differential Equations. Functions of several variables.		
Basic bibliography:		
Additional bibliography:		
Result of average student's workload		
Activity	Time (working hours)	
1. Lectures	30	
2. Classes	15	
3. Consultation	15	
4. Preparing to classes	15	
5. Preparing to pass the lectures	23	
6. Exam	2	
Student's workload		
Source of workload	hours	ECTS
Total workload	100	4
Contact hours	62	2
Practical activities	38	2