

STUDY MODULE DESCRIPTION FORM		
Name of the module/subject German Course (mathematical)		Code
Field of study Mathematics in Technology	Profile of study (general academic, practical) general academic	Year /Semester 1/1
Elective path/specialty -	Subject offered in: German	Course (compulsory, elective) elective
Cycle of study: First-cycle studies (Polish Qualifications Framework level six)	Form of study (full-time, part-time) full-time	
No. of hours Lecture: - Classes: 60 Laboratory: - Project/seminars: -		No. of credits 3
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 The sciences Mathematical sciences		ECTS distribution (number and %) 3 100% 3 100%
Responsible for subject / lecturer: Mgr Maja Rakiewicz email: maja.rakiewicz@put.poznan.pl tel. 61 665 2705 Centrum Języków i Komunikacji ul. Piotrowo 3A 60-965 Poznań		
Prerequisites in terms of knowledge, skills and social competencies [PQF4]:		
1	Knowledge	The already acquired language competence compatible with level B1 (CEFR)
2	Skills	The ability to use vocabulary and grammatical structures required on the high school graduation exam regarding productive and receptive skills
3	Social competencies	The ability to work individually and in a group; the ability to use various sources of information and reference works
Assumptions and objectives of the course: 1. Advancing students' language competence towards at least level B2 (CEFR). 2. Development of the ability to use academic and field specific language effectively in both receptive and productive language skills. 3. Improving the ability to understand field specific texts (familiarizing students with basic translation techniques). 4. Improving the ability to function effectively on an international market and on a daily basis.		
Study outcomes and reference to the educational results for a field of study		
Knowledge - As a result of the course, the student ought to acquire field specific vocabulary related to the following issues:		
1	-description of the line graphs, -algebra -geometrie, planimetry, stereometry -functions -mathematical theorems [K_W03, (P6S_WG)]	
2	and to be able to define and explain associated terms, phenomena and processes. [K_W03 (P6S_WG)] [K_W03 (P6S_WG)]	
Skills - as a result of the course, the student is able to:		
1	give a talk on a field specific or popular science topic (in German), and discuss general and field specific issues using an appropriate linguistic and grammatical repertoire [K_U13 (P6S_UK)]	

2	express basic mathematical formulas and to interpret data presented on graphs/diagrams [K_U13 (P6S_UK)]
3	formulate a text in German where he/ she explains/ describes a selected field in specific topics [K_U13 (P6S_UK)]
Social competencies: As a result of the course, the student is able to	
1	As a result of the course, the student is able to communicate effectively in a field specific/professional area, and to give a successful presentation in German [K_K01, (P6S_KK)]
2	The student is able to recognize and understand cultural differences in a professional and private conversation, and in a different cultural environment [K_K01, (P6S_KK)]

Assessment methods of study outcomes		
Formative assessment: assessment during language classes: oral performance, written assignments, mid-term test, speech/presentation, tests Summative assessment: credit		
Course description		
History of mathematics Types of numbers, fraction, decimals mathematical operations, powers, roots, logarithms Numbers systems Mathematical terms and symbols Basic concepts in geometrie, plane figures and solids The role of functions in mathematics and technology Types of sets Famous mathematicians and their theorems Update: 10.2018		
Basic bibliography: 1.Steinmetz,M. / Dintera, H.: Deutsch für Ingenieure, Ein DaF Lehrwerk für Studierende ingenieurwissenschaftlicher Fächer, Springer Vieweg, Wiesbaden 2014		
Additional bibliography: 1.Bindner, H.-Buhlmann, R.: MNF Hinführung zur mathematisch-naturwissenschaftlichen Fachsprache: Mathematik, Hueber Verlag, München 2.Kotowski, S.: Słownik pojęć i kontekstów matematycznych, wydawnictwo Bila, Rzeszów 2010 3. Materiały online: http://www.kj.fme.vutbr.cz/deuma/online/overview.htm https://www.mathematik.de/ger/information/landkarte/gebiete/gebiete.html http://www.schulminator.com/ http://www.mathe-in-smarties.de/		
Result of average student's workload		
Activity	Time (working hours)	
participation in classes (30 x 2h)	60	
preparing for tests, presentation	20	
homework	10	
Student's workload		
Source of workload	hours	ECTS
Total workload	90	3
Contact hours	60	2
Practical activities	60	1