STUDY MODULE DESCRIPTION FORM						
	of the module/subject nan Course (techn	iical)		Code		
Field o	f study		Profile of study (general academic, practical)	Year /Semester		
Mathematics in Technology			general academic	1/2		
Elective path/specialty -			Subject offered in: German	Course (compulsory, elective) elective		
Cycle o	of study:		Form of study (full-time,part-time)			
First-cycle studies			full-time			
(Pol						
No. of	hours			No. of credits		
Lectur	e: - Classes:	60 Laboratory: -	Project/seminars:	- 3		
Status	of the course in the stud	ly program (Basic, major, other)	(university-wide, from anoth	ner field)		
	ot	her	unive	ersity-wide		
Education areas and fields of science and art Technical sciences				ECTS distribution (number and %)		
rech				3 100%		
	Technical scien	ces		3 100%		
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:						
1	Knowledge	The already acquired languag [PQF 4]	e competence compatible with	level B1 (CEFR) -		
2	Skills		and grammatical structures required on the high school roductive and receptive skills – [PQF 4]			
3	Social competencies	The ability to work individually information and reference work	and in a group; the ability to us ks	e various sources of		
Assu	mptions and object	ctives of the course:				
 Advancing students' language competence towards at least level B2 (CEFR). Development of the ability to use academic and field specific language effectively in both receptive and productive language skills. Improving the ability to understand field specific texts (familiarizing students with basic translation techniques). 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:						
- - [K_W0	basics of Electrical Engi forms of electrical energy renewable energy electrical machines 3 (P6S_WG)] be able to define and ex	-	nena and processes. [K_W03 (F	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:

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

- 1. **Formative assessment:** assessment during language classes: oral performance, written assignements, mid-term test, speech/presentation, tests
- 2. Summative assessment: final examination

Course description

Electrical charge, voltage, current, operation of electrical current, resistance, measuring of electrical current Forms and carrier of electrical energy

Renewable energy: solar panels, geothermal energy, wind energy, water turbine

Transformer, generator, electrical machines

Update: 10.2018

Basic bibliography:

Steinmetz, M./ Dintera, H.: Deutsch für Ingenieure, Ein DaF Lehrwerk für Studierende ingenieurwissenschaftlicher Fächer, Springer Vieweg 2014

Additional bibliography:

Fearns, A./ Buhlmann, R.: Technisches Deutsch für Ausbildung und Beruf, Lehr- und Arbeitsbuch, Verlag Europa-Lehrmittel, Goethe Institut 2013

Result of average stude	nt's workload	
Activity	Time (working hours)	
participation in classes (30 x 2h)		60
preparing a presentation	10	
preparing for tests, homework	10	
preparing and final examination	10	
Student's work	load	
Source of workload	hours	ECTS
Total workload	90	3
Contact hours	60	2
Practical activities	60	1