1	STUDY MODULE DESCRIPTION FORM							
Name of the module/subject English Course (technical)					Code			
Field of s	study	·	Profile of study	al	Year /Semester			
Math	ematics in techn	ology	general academi	C	1/2			
Elective	path/specialty	_	Subject offered in: English		Course (compulsory, elective)			
Cycle of	study:	-	Form of study (full-time,pa	rt-time)	elective			
	First-c	vole studies	full-time					
(Po	olish Qualificatio	ons Framework level six)	Tun-time					
No. of ho	ours	,			No. of credits			
Lecture	e: - Classes	: 60 Laboratory: -	Project/seminars:	-	3			
Status of	the course in the study	program (Basic, major, other)	(university-wide, from another field)					
Educatio	n areas and fields of asis	other		ι	iniversity-wide			
Educatio	n areas and fields of scle	ence and art		ECTS distribution (number and %)				
Techr	nical sciences			3 100%				
	Technical scie	nces		3 100%				
Respo	onsible for subje	ct / lecturer:						
Mgr .	Alicja Wegwerth-Kurp	iewska						
e-ma	ail: alicja.wegwerth-ku	rpiewska@put.poznan.pl						
Cent	rum Języków i Komur	nikacji PP						
ul. P	iotrowo 3A, 60-965 Pc	oznań						
Prere	quisites in term	s of knowledge, skills and so	ocial competencies	s [PQ	F 4]:			
		The already acquired language comp	petence compatible with	level B	1 (CEFR)			
1	Knowledge							
			ammatical structures required on the high school uctive and receptive skills					
2	Skills	The ability to use vocabulary and gra graduation exam with regard to produ	immatical structures requ uctive and receptive skill	uired or s	n the high school			
2 3	Skills Social competencies	The ability to use vocabulary and gra graduation exam with regard to produce The ability to work individually and in and reference works.	ammatical structures requ uctive and receptive skill a group; the ability to us	uired or s se vario	n the high school			
2 3	Skills Social competencies	The ability to use vocabulary and gra graduation exam with regard to produce The ability to work individually and in and reference works.	ammatical structures requ uctive and receptive skill a group; the ability to us	uired or s se vario	n the high school			
2 3 Assu	Skills Social competencies mptions and obj	The ability to use vocabulary and gra graduation exam with regard to produce The ability to work individually and in and reference works.	a group; the ability to us	uired or s se vario	n the high school			
2 3 Assul 1. Adva 2. Deve	Skills Social competencies mptions and objuncing students' langue elopment of the ability	The ability to use vocabulary and gra graduation exam with regard to produce The ability to work individually and in and reference works. ectives of the course: age competence towards at least leve to use academic and field specific lange	a group; the ability to us B2 (CEFR). guage effectively in both	uired or s se vario recepti	n the high school us sources of information ve and productive language			
2 3 Assul 1. Adva 2. Deve skills. 3. Impre	Skills Social competencies mptions and objuncing students' langue elopment of the ability pying the ability to uno	The ability to use vocabulary and gra graduation exam with regard to produ- The ability to work individually and in and reference works. ectives of the course: age competence towards at least leve to use academic and field specific lange derstand field specific texts (familiarizin	a group; the ability to us B group; the ability to us B guage effectively in both a students with basic tra	uired or s se vario recepti	n the high school ius sources of information ve and productive language n techniques).			
2 3 Assul 1. Adva 2. Deve skills. 3. Impre 4. Impre	Skills Social competencies mptions and objuncing students' langue elopment of the ability poving the ability to und poving the ability to fun	The ability to use vocabulary and gra graduation exam with regard to produ- The ability to work individually and in and reference works. ectives of the course: age competence towards at least leve to use academic and field specific lange derstand field specific texts (familiarizin ction effectively on an international ma	Immatical structures requ uctive and receptive skill a group; the ability to us I B2 (CEFR). guage effectively in both ng students with basic tra urket and on a daily basis	uired or s se vario recepti anslatio s.	n the high school rus sources of information ve and productive language n techniques).			
2 3 Assul 1. Adva 2. Deve skills. 3. Impro 4. Impro	Skills Social competencies mptions and objuncing students' langue elopment of the ability by by the ability to und by the ability to fun Study outcom	The ability to use vocabulary and gra graduation exam with regard to produ- The ability to work individually and in and reference works. ectives of the course: age competence towards at least leve to use academic and field specific lang- derstand field specific texts (familiarizin ction effectively on an international ma- mes and reference to the edu-	a group; the ability to us a group; the ability to us I B2 (CEFR). guage effectively in both og students with basic tra irket and on a daily basis	recepti anslatio	n the high school ous sources of information ive and productive language n techniques).			
2 3 Assul 1. Adva 2. Deve skills. 3. Impro 4. Impro Know	Skills Social competencies mptions and obje incing students' langue elopment of the ability oving the ability to und oving the ability to fun Study outcol redge: As a result	The ability to use vocabulary and gra graduation exam with regard to prode The ability to work individually and in and reference works. ectives of the course: age competence towards at least leve to use academic and field specific lang derstand field specific texts (familiarizin ction effectively on an international man mes and reference to the edu of the course the student::	a group; the ability to us a group; the ability to us I B2 (CEFR). guage effectively in both og students with basic tra irket and on a daily basis	uired or s se vario recepti anslatio s. Dr a fi	n the high school ius sources of information ive and productive language n techniques). eld of study			
2 3 Assul 1. Adva 2. Deve skills. 3. Impre 4. Impre Know 1	Skills Social competencies mptions and objuncing students' langue elopment of the ability by the ability to und by the ability to und by the ability to fun Study outcool reledge: As a result ought to acquire field and distribution, sma [K W03 (P6S WG]]	The ability to use vocabulary and gra graduation exam with regard to prode The ability to work individually and in and reference works. ectives of the course: age competence towards at least leve to use academic and field specific lang derstand field specific texts (familiarizin ction effectively on an international ma mes and reference to the edu of the course the student:: I specific vocabulary related to electric rt grid and also be able to define and e	a group; the ability to us a group; the ability to us I B2 (CEFR). guage effectively in both ag students with basic tra arket and on a daily basis ucational results fo al machines: transformer explain associated terms	recepti anslatio r, gener , pheno	n the high school nus sources of information we and productive language n techniques). eld of study rator, power transmission pmena and processes			
2 3 Assu 1. Adva 2. Deve skills. 3. Impro 4. Impro Know 1	Skills Social competencies mptions and objection incing students' langue elopment of the ability toving the ability to und by the ability to fund Study outcool ledge: As a result ought to acquire field and distribution, smathing [K_W03 (P6S_WG)] knows and understate forms [K_W03 (P6S)	The ability to use vocabulary and gra graduation exam with regard to prode The ability to work individually and in and reference works. ectives of the course: age competence towards at least leve to use academic and field specific lang derstand field specific texts (familiarizin ction effectively on an international material mes and reference to the edu of the course the student:: I specific vocabulary related to electric rt grid and also be able to define and e mds English grammar and lexical rules S_WG)]	a group; the ability to us a group; the ability to us I B2 (CEFR). guage effectively in both ag students with basic tra inket and on a daily basis JCATIONAL RESULTS fC al machines: transformed explain associated terms and applies them succes	uired or s se vario recepti anslatio s. or a fi , pheno ssfully i	n the high school us sources of information ve and productive language n techniques). eld of study rator, power transmission omena and processes in various oral and written			
2 3 Assul 1. Adva 2. Deve skills. 3. Impro 4. Impro Know 1 2 Skills	Skills Social competencies mptions and obju- incing students' langu elopment of the ability oving the ability to fun Study outcom Study outcom reledge: As a result ought to acquire field and distribution, sma [K_W03 (P6S_WG)] knows and understar forms [K_W03 (P6S : As a result of the	The ability to use vocabulary and gra graduation exam with regard to prode The ability to work individually and in and reference works. ectives of the course: age competence towards at least leve to use academic and field specific lang derstand field specific texts (familiarizin ction effectively on an international material mes and reference to the edu of the course the student:: I specific vocabulary related to electric rt grid and also be able to define and en ads English grammar and lexical rules S_WG)] course, the student is able to:	a group; the ability to us a group; the ability to us B2 (CEFR). guage effectively in both og students with basic tra irket and on a daily basis ucational results fo al machines: transformer explain associated terms and applies them succes	uired or s se vario recepti anslatio s. or a fi r, gener , pheno ssfully i	n the high school us sources of information we and productive language n techniques). eld of study rator, power transmission omena and processes in various oral and written			
2 3 Assul 1. Adva 2. Deve skills. 3. Impro- Know 1 2 Skills 1	Skills Social competencies mptions and obje incing students' langue elopment of the ability oving the ability to fun Study outcon rledge: As a result ought to acquire field and distribution, sma [K_W03 (P6S_WG)] knows and understar forms [K_W03 (P6S : As a result of the discuss general and (P6S_UK)]	The ability to use vocabulary and gra graduation exam with regard to prode The ability to work individually and in and reference works. ectives of the course: age competence towards at least leve to use academic and field specific lang derstand field specific texts (familiarizin ction effectively on an international ma mes and reference to the edu of the course the student:: I specific vocabulary related to electric rt grid and also be able to define and en ads English grammar and lexical rules S_WG)] course, the student is able to: field specific issues using an appropria	a group; the ability to us a group; the ability to us I B2 (CEFR). guage effectively in both ag students with basic tra arket and on a daily basis ucational results fo al machines: transformed explain associated terms and applies them succes ate linguistic and gramma	uired or s se vario recepti anslatio pr a fie r, genee r, genee ssfully i astical re	n the high school ous sources of information we and productive language n techniques). eld of study rator, power transmission omena and processes in various oral and written epertoire [K_U13			
2 3 Assul 1. Adva 2. Deve skills. 3. Impre 4. Impre Know 1 2 Skills 1 2	Skills Social competencies mptions and obju- incing students' langu- elopment of the ability oving the ability to fun Study outcon reledge: As a result ought to acquire field and distribution, sma [K_W03 (P6S_WG)] knows and understar forms [K_W03 (P6S] : As a result of the discuss general and (P6S_UK)] communicate in Eng mathematical tools [The ability to use vocabulary and gra graduation exam with regard to prode The ability to work individually and in and reference works. ectives of the course: age competence towards at least leve to use academic and field specific lang derstand field specific texts (familiarizin ction effectively on an international ma mes and reference to the edu of the course the student:: I specific vocabulary related to electric rt grid and also be able to define and e mds English grammar and lexical rules S_WG)] course, the student is able to: field specific issues using an appropria lish in general and professional enviro K_U13 (P6S_UK)]	a group; the ability to us a group; the ability to us I B2 (CEFR). guage effectively in both ag students with basic tra- arket and on a daily basis ucational results fo al machines: transformed explain associated terms and applies them succes ate linguistic and gramma	uired or s se vario recepti anslatio c, genee ssfully i atical re chnique	n the high school ous sources of information we and productive language n techniques). eld of study rator, power transmission omena and processes in various oral and written epertoire [K_U13 es and also using			

4 read and understand mathematical texts and technical documents [K U13 (P6S UK)]	read and understand mathematical texts and technical documents, manuals of electrical machines and similar documents [K_113 (P6S_1K)]						
Social competencies: As a result of the course, the student will acquire the following competencies:							
is able to communicate effectively in English in professional areas and in typical everyday situations and also to work							
is able to recognize and understand cultural difference	in team [K_K01 (P6S_KK)] is able to recognize and understand cultural differences in a professional and private conversation in English, and in						
2 a different cultural environment, understands social a acts ethically [K K01 (P6S KK)]	a different cultural environment, understands social aspects of practical application of acquired competences and acts ethically. [K, K01 (P6S, KK)]						
3 is able to find specialist information in English literature	is able to find specialist information in English literature sources [K_K01 (P6S_KK)]						
Assessment metho	ds of study outcomes						
1. Formative assessment: assessment during language classes: oral performance, written assignments, MT test, speech/presentation, tests							
2. Summative assessment: final oral and written exar	mination						
Course d	escription						
1. Electrical machines: transformer, generator.							
2. Power transmission and distribution.							
3. Smart grid.							
4. Renewable and non-renewable energy sources.							
Basic bibliography:							
 Basic Dibliography: Dubis, A. / Firganek, J. 2006. English through Electrical and Energy Engineering. Kraków: Studium Praktycznej Nauki Języków Obcych Politechniki Krakowskiej. Gajewska-Skrzypczak, I./ Sawicka, B. 2013. English for Electrical Engineering. Poznań: Publishing House of Poznan University of Technology. Additional bibliography: Pople, S. 2001. Complete Physics. Oxford: Oxford University Press. Campbell, S. 2009. English for the Energy Industry.Oxford: Oxford University Press. Brieger, N. / Pohl, A. 2002. Technical English Vocabulary and Grammar. Oxford: Summertown Publishing Ltd. Murphy, R. 2012. Essential English Grammar in Use. Cambridge: Cambridge University Press. Internet sources (howstuffworks, science daily, wikipedia) 							
					Result of average	student's workload	
					Activity		Time (working hours)
participation in classes		60					
preparing a presentation	1						
preparing for tests, homeworks	4						
preparing and participating in a final examination	10						
Student's workload							
Source of workload	hours	ECTS					
Total workload	75	3					
Contact hours	60	2					
Practical activities	15	1					